(July 1992)	UNI	TED STATES		(Othe	r instructions on everse side)	FORM API OMB NO. 1 Expires: Febru	004 0124
•	•	T OF THE IN		OCD-I	IOBBS	5. LEASE DESIGNATION	AND BERIAL NO.
APF	LICATION FOR P	ERMIT TO DF	RILL O	R DEE	PEN	6. IF INDIAN, ALLOTTE	E OR TRIBE NAME
la. TYPE OF WORK [ b. TYPE OF WELL	DRILL 🛛	DEEPEN		Dî	6-34	7. UNIT AGBEEMENT N COTTON DRAW	
OIL X WELL X 2. NAME OF OPERATOR POGO PRODUCI	NG COMPANY (F	CICHARD WRIGHT	BINCLE ZONE 432-6	<u> </u>	ZONE	8. FARM OR LEASE NAME, WE COTTON DRAW 9. AT WELL NO.	11 NO. 301629
3. ADDRESS AND TELEPHONE P.O. BOX 103	NO. 40 MIDLAND, TEXA	S 79702-7340	(432	2-685-8	100)	30.025-3"	1802
At surface	(Report location clearly and 760' FWL SECTION		-	co. NM	a.•)	PADUCA-DELAWAI 11. SEC., T., B., M., OR AND SURVEY OF AL	BLX.
At proposed prod.		U		m		SEC. 15 T25S-1	R32E
	s and direction from NEA ly 25 miles West	- •				12. COUNTY OR PARISH LEA CO.	13. BTATE NEW MEXICO
15. DISTANCE FROM PR LOCATION TO NEAR PROPERTY OR LEAS (Also to Dearest of	EST	660'	5. NO. OF 40	ACRES IN L		OF ACRES ASSIGNED THIS WELL 40	
OR APPLIED FOR, ON	, DRILLING, COMPLETED, THIS LEASE, FT.	1320'	5000			ARY OR CABLE TOOLS	
21. ELEVATIONS (Show	whether DF, RT, GR, etc.)	3421' GR.				22. APPROX. DATE WO WHEN APPROVE	
23.		PROPOSED CASING	AND CEN	IENTING P	ROGRAM	ished Controlled Wi	
SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT		SETTING DEI		QUANTITY OF CEMES	
26"	Conductor 20"	NA		40'	Cemen	t to surface W/	Redi-mix.
12½"	IT-55 8 5/8"	24#	1	8151	1300 0	Sy circulate co	amont

1. Drill 26" hole to 40'. Set 40' of 20" conductor pipe and cement to surface with Redi-mix.

15.5#

7/7/8"

51/1

J-55

- 2. Drill 124" hole to 815'. Run and set 815' of 8 5/8" 24# J-55 ST&C casing. Cement with 150 Sx. of Class "C" 65/35/6 POZ/GEL, tail in with 150 Sx. of Class "C" cement + 2% CaCl, + ½# Flocele/Sx. circulate cement to surface.
- 3. Drill 7 7/8" hole to 5000'. Run and set 5000' of 5½" 15.5# J-55 ST&C casing. Cement with 475 Sx. of Class "C" Light Weight Cement + 5% Salt mixed at 12.9 #/Gal, tail in in with 250 Sx. of Class "C" cement + 8# of Gilsonite/Sx., mixed at 14.1#/Gal. Circulate cement to surface. Slurry may have to be re-calculated after logs are run.

POGO PRODUCING COMPANY ACCEPTS THE RESPONSIBILITY FOR THE OPERATION OF THIS LEASE. APTROVAL REPRESET TO

5000'

Witness Surface Casing

General Requirements A

725 Sx

11

N ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If pr keepen directionally, give pertinent data on subsurface locations	oposal is to deepen, give data on present productive Sofe, and and measured and aree vertical depths. Give blowout performance	CALL RECTURE AND STATES CALL OF
SIGNED LEGT fran	Ca TITLE Agent	DATE01/18/06
(The space for Federal or State office use)	APPROVAL DATY	
Application approval does not warrant or certify that the appli CONDITIONS OF APPROVAL, IF ANY:	ant holds legal or equitable title to those rights in the subject lense	which would entitle the applicant to conduct operations thereon
APPROVED BY /c/ James Stovall	FIELD MANAGER	DATE
	*See Instructions On Reverse Side	APPROVAL FOR 1 YEAR

DISTRICT I Energy, Minerals and Natural Resources Department 1825 N. PRENCE DR., BOBBS, NM 88240 Form C-102 Revised JUNE 10, 2003 DISTRICT II OIL CONSERVATION DIVISION Submit to Appropriate District Office 1301 W. GRAND AVENUE, ARTESIA, NH 88210 State Lease - 4 Copies 1220 SOUTH ST. FRANCIS DR. Fee Lease - 3 Copies Santa Fe, New Mexico 87505 DISTRICT III 1000 Rio Brazos Rd., Aztec, NM 87410 DISTRICT IV WELL LOCATION AND ACREAGE DEDICATION PLAT AMENDED REPORT 1220 S. ST. FRANCIS DR., SANTA FR. NM 87505 API Number Pool Code Pool Name 30-025-37 PADUCA-DELAWARE 49460 36 **Property** Name Well Number **Property** Code COTTON DRAW UNIT 3011629 107 OGRID No. **Operator** Name Elevation POGO PRODUCING COMPANY 17891 3421 Surface Location Lot Idn Feet from the North/South line **Bast/West** line UL or lot No. Section Township Range Feet from the County Μ 15 25-S 32-E 660 SOUTH 760 WEST LEA Bottom Hole Location If Different From Surface Lot Idn Feet from the North/South line **Bast/West** line UL or lot No. Section Township Range Feet from the County Dedicated Acres Joint or Infill Consolidation Code Order No. 40 NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION **OPERATOR CERTIFICATION** I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief. le\_e Signature Joe T. Janica Printed Name Agent Title 01/18/06 Date SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervison and that the same is true and correct to the best of my ballef. G. EID LA Date-Surveyed Signature & Seal of ò Professional Surveyor NM-062300 GEODETIC COORDINATES HEG(S) \_3422. 3423.6' NAD 27 NME 600 105 Y=409801.7 N nm <u>600</u> 760 ~05.11**.186**Ž X=705801.3 E Certificate No. GARY EIDSON 12641

State of New Mexico

LAT.=32'07'29.70" N

LONG. = 103'40'06.78" W

3419.1

3418



# LOCATION VERIFICATION MAP



VICINITY MAP



SCALE: 1'' = 2 MILES

SEC. <u>15</u> TWP. <u>25-S</u> RGE. <u>32-E</u>

SURVEY N.M.P.M.

COUNTY\_\_\_\_\_LEA

DESCRIPTION 660' FSL & 760' FWL

ELEVATION \_\_\_\_\_ 3421'

OPERATOR POGO PRODUCING COMPANY LEASE COTTON DRAW UNIT



#### APPLICATION TO DRILL

POGO PRODUCING COMPANY COTTON DRAW UNIT # 107 UNIT "M" SECTION 15 T25S-R32E LEA CO. NM

In response to questions asked under Section II of Bulletin NTL-6 the following information on the above well is provided for your consideration.

- 1. Location of well: 660' FSL & 760' FWL SECTION 15 T25S-R32E LEA CO. NM
- 2. Ground Elevation above Sea Level: 3421' GR.
- 3. Geological age of surface formation: Quaternary Deposits:
- 4. Drilling tools and associated equipment: Conventional rotary drilling rig using drilling mud as a circulating medium to remove solids from hole.
- 5. Proposed drilling depth: 5000'

Rustler Anhydrite	753'	Ramsey	4680 <b>'</b>
Salt	1072'	Ford	4780 <b>'</b>
Lamar Lime	4638'	Olds	· 4787'
Delaware	4662'	TD	. 5000 <b>'</b>

Delaware	Oil
Ramsey	Oil
Ford	Oil

and the second second

8. Casing Program:

Hole Size	Interval	OD of Casing	Weight	Thread	Collar	Grade
26"	0-40	20"	NA	NA	NA C	Conductor
121"	0-815'	8 5/8"	24#	8-R	ST&C	H-40
7 7/8"	0-5000'	52"	15.5#	8-R	ST&C	J-55
						•.

Olds

Oil

#### APPLICATION TO DRILL

POGO PRODUCING COMPANY COTTON DRAW UNIT # 107 UNIT "M" SECTION 15 T25S-R32E LEA CO. NM

## 9. <u>CEMENTING & CASING SETTING DEPTHS</u>:

20"	Conductor	Set 40' of 20" conductor pipe and cement to surface with Redi-mix.
8 5/8"	Surface	Set 815' of 85/8" 24# J-55 ST&C casing. Cement with 150 Sx. of 65/35/6 Class "C" POX/GEL, tail in with 150 Sx. of Class "C" cement + 2% CaCl, + $\frac{1}{2}$ # Flocele/Sx. Circulate cement to sutface.
51''	Production	Set 5000' of 5½" 15.5# J-55 ST&C casing. Cement with 475 Sx. of Class "C" Light weight cement with 5% salt, mixed at 12.9 PPG, tail in with 250 Sx. of Class "C" cement + 8# Gilsonite/Sx. Mix at 14.1 PPG circulate cement to surface. Cement volumes may have to be adjusted if caliper logs show more is required to circulate.

## 10. PRESSURE CONTROL EQUIPMENT:

Exhibit "E" shows a 2000 PSI working pressure B.O.P., consisting of a stripper head instead of an annular preventor, blind rams, and pipe rams. This B.O.P. stack is being used because of Substructure height limitations of the drilling rig being used to drill this well. Pressures encountered during drilling are not expected to exceed 2000 PSI at total depth. Pogo requests permission to 3rd party test of B.O.P. B.O.P. will be installed after setting the 8 5/8" surface casing, The B.O.P. will be tested according to API specifications. Exhibit "E-1" shows a manually operated choke manifold , as no remote B.O.P. equipment will be necessary.

DEPTH	MUD WT.	VISC.	FLUID LOSS	TYPE MUD
40-815'	8.4-8.7	29-34 -	NC	Fresh water spud mud use paper to control seepage.
815-5000'	10.0-10.2	29-38	NC*	Brine water add paper to control seepage and high viscosity sweeps to clean hole.

#### 11. PROPOSED MUD CIRCULATING SYSTEM:

\* Water loss control may be necessary in order to run logs and casing. Use starch to control water loss or a Polymer system.

## APPLICATION TO DRILL

POGO PRODUCING COMPANY COTTON DRAW UNIT # 107 UNIT "M" SECTION 15 T25S-R32E LEA CO. NM

## 12. LOGGING, CORING, AND TESTING PROGRAM:

- A. Open hole logs: Dual Laterolog, LDT, SNP, MICRO SFL, Gamma Ray, Caliper run from TD Back to 8 5/8" casing shoe.
- B. Run Gamma Ray, Neutron from 8 5/8" casing shoe back to surface.
- C. No DST's are planned at this time.
- D. Cores may be taken at the advice of Geologist.

#### 13. POTENTIAL HAZARDS:

No abnormal pressures or temperatures are expected. There is no known presence of  $H^2S$  in this area. If  $H^2S$  is encountered the operator will comply with the provisions of Onshore Oil and Gas Order No. 6. No lost circulation is expected to occur. All personnel will be familiar with all aspects of safe operation of equipment being used to drill this well. Estimated BHP \_\_\_\_\_\_ 2000 \_\_\_\_\_ PSI, and Estimated BHT 130°

#### 14. ANTICIPATED STARTING DATE AND DURATION OF OPERATION:

Road and location construction will begin after the BLM has approved the APD. Anticipated spud date will be as soon after BLM approval and as soon as a rig will be available. Move in operation and drilling is expected to take 20 days. If production casing is run then an additional 30 days will be needed to complete well and construct surface facilities and/or lay flowlines in order to place well on production.

#### 15. OTHER FACETS OF OPERATIONS:

After running casing, cased hole Gamma Ray, Neutron Collar logs will be run from TD back to all possible productive zones. The <u>Delaware</u> formation will be perforated and stimulated in order to establish production. The well will be swab tested and potentialed as an oil well.

- 1. All Company and Contract personnel admitted on location must be trained by a qualified H<sub>2</sub>S safety instructor to the following:
  - A. Characteristics of H<sub>2</sub>S
  - B. Physical effects and hazzards
  - C. Proper use of safety equipment and life support systems.
  - D. Principle and operation of H<sub>2</sub>S detectors, warning system and briefing areas.
  - E. Evacuation procedure, routes and first aid.
  - F. Proper use of 30 minute pressure demand air pack.
- 2. H<sub>2</sub>S Detection and Alarm Systems
  - A. H<sub>2</sub>S detectors and audio alarm system to be located at bell nipple, end of blooie line (mud pit) and on derrick floor or doghouse.
- 3. Windsock and/or wind streamers
  - A. Windsock at mudpit area should be high enough to be visible.
  - B. Windsock at briefing area should be high enough to be visible.
  - C. There should be a windsock at entrance to location.
- 4. Condition Flags and Signs
  - A. Warning sign on access road to location.
  - B. Flags to be displayed on sign at entrance to location. Green flag, normal safe condition. Yellow flag indicates potential pressure and danger. Red flag, danger, H<sub>2</sub>S present in dangerous concentration. Only emergency personnel admitted to location.
- 5. Well control equipment
  - A. See exhibit "E"

#### 6. Communication

13-A

- A. While working under masks chalkboards will be used for communication.
- B. Hand signals will be used where chalk board is inappropriate.
- C. Two way radio will be used to communicate off location in case of emergency help is required. In most cases cellular telephoned will be available at most drilling foreman's trailer or living quarters.
- 7. Drillstem Testing
  - A. Exhausts will be watered.
  - B. Flare line will be equipped with an electric ignitor or a propane pilot light in case gas reaches the surface.
  - C. If location is near any dwelling a closed D.S.T. will be performed.

- 8. Drilling contractor supervisor will be required to be familiar with the effects  $H_2S$  has on tubular goods and other mechanical equipment.
- 9. If  $H_2S$  is encountered, mud system will be altered if necessary to maintain control of formation. A mud gas seperator will be brought into service along with  $H_2S$  scavengers if necessary.

-.-

State of New Mexico **Energy Minerals and Natural Resources** 

> **Oil Conservation Division** 1220 South St. Francis Dr. Santa Fe, NM 87505

For drilling and production facilities, submit to appropriate NMOCD District Office. For downstream facilities, submit to Santa Fe office

Pit or Below-Grade Tank Registration or Closure Is pit or below-grade tank covered by a "general plan"? Yes INO X Type of action: Registration of a pit or below-grade tank X Closure of a pit or below-grade tank I

Facility or well name: <u>Cotton Draw Unit 107</u> API #: <u>30</u>	-025- 37802 U/L or Qtr/Qtr M Se	ec <u>15 T 258 R 32E</u>
County: Lea County Latitude	••	
Surface Owner: Federal 🛛 State 🗋 Private 🗋 Indian 🗍		
<u>Pit</u>	Below-grade tank	
Type: Drilling 🖾 Production 🗖 Disposal 🛄	Volume:bbl Type of fluid:	
Workover 🔲 Emergency 🗋	Construction material:	-
Lined 🖾 Unlined 🛄	Double-walled, with leak detection? Yes 🔲 If no	t, explain why not.
Liner type: Synthetic 🖾 Thickness <u>12</u> mil Clay 🗖		
Pit Volume <u>16000</u> bbl		
Depth to ground water (vertical distance from bottom of pit to seasonal	Less than 50 feet	(20 points)
high water elevation of ground water.)	50 feet or more, but less than 100 feet	(10 points)
	100 feet or more X	( 0 points) 0
Wellhead protection area: (Less than 200 feet from a private domestic	Yes	(20 points)
water source, or less than 1000 feet from all other water sources.)	No X	(0 points) 0
Distance to surface water: (horizontal distance to all wetlands, playas,	Less than 200 feet	(20 points)
irrigation canals, ditches, and perennial and ephemeral watercourses.)	200 feet or more, but less than 1000 feet	(10 points)
in Burton surgis, choice, and potential and optionistal water courses.	1000 feet or more X	( 0 points) 0
	Ranking Score (Total Points)	0
this is a pit closure: (1) Attach a diagram of the facility showing the pit	's relationship to other equipment and tanks. (2) Indic	ate disposal location: (check the onsite box i
our are burying in place) onsite 🔲 offsite 🔲 If offsite, name of facility_	. (3) Attach a general of	fescription of remedial action taken including
mediation start date and end date. (4) Groundwater encountered: No		

Additional Comments:

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that the above-described pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines 🛛, a general permit [], or an (attached) alternative OCD-approved plan [].

Date: 04/12/06

7 **8** 

regulations.

Approval:	ORIGINAL SIGNED BY	APR 1 3 2006
Printed Name/Title	_Signature PAUL F. KAUTZ	Date:
······································	PETROLEUM ENGINEE	



Retrieved on 2006-03-28 12:01:11 EST Department of the Interior, U.S. Geological Survey USGS Water Resources of New Mexico

http://nwis.waterdata.usgs.gov/nm/nwis/nwismap/?site\_no=321005103402301

3/28/2006



http://nwis.waterdata.usgs.gov/nm/nwis/gwlevels/?site\_no=321005103402301

#### Page 1 of 3

## **Great Circle Calculator.**

## **By Ed Williams**

You need Javascript enabled if you want this page to do anything useful! For Netscape, it's under Options/Network Preferences/Languages.

## Compute true course and distance between points.

Enter lat/lon of points, select distance units and earth model and click "compute". Lat/lons may be entered in DD.DD, DD:MM.MM or DD:MM:SS.SS formats.

Note that if either point is very close to a pole, the course may be inaccurate, because of its extreme sensitivity to position and inevitable rounding error.

Input Data				
Lat1	Lon1			
32:10:05 N	103:40:23 W 💌			
Lat2	Lon2			
32:07:29.7 N 💌	103:40:06.78 W 📻			

Output				
Course 1-2	Course 2-1	Distance		
174.945229	354.947626	2.59843403		

Distance Units: nm 📰 Earth model: Spherical (1'=1nm)

Compute Reset

## Compute lat/lon given radial and distance from a known point

Enter lat/lon of initial point, true course and distance. Select distance units and earth model and click "compute". Lat/lons may be entered in DD.DD, DD:MM.MM or DD:MM:SS.SS formats.

Note that the starting point cannot be a pole.

Input data				
Lat1 Lon1				
0:00.00	N	0:00.00	W	
Course 1-2	]	Distance 1-2	2	
360		0.0		

http://williams.best.vwh.net/gccalc.htm

4/12/2006

## **POGO Producing Company Cotton Draw Unit 107 Approximate Pit Dimensions**

M/15/25S/32E, Lea County, New Mexico



PIT NOTES:

Pit will be lined with 12 mil Black plastic w/ UV protection. Pit walls are 6 ft to 8 ft wide. Pit is 8 ft deep below ground level plus 2 ft walls Pit walls are 2 ft above ground level. Caliches mined from pit used to make Well Pad. Fresh Water volume to ground level = ± 7950 bbls Brine Water volume to ground level = ± 7730 bbls 12 inch Flare line laid on gradual descending graded ROW away from rig to avoid fluid trapping Fresh water well = (Nad 27) 32° 10' 05" N & 103° 40' 23" W "Published data" This well produces from a depth greater than 100 ft.

Pit equals approx 16000 bbls

Page 1 of 1

The sende	er of this message has requested a read receipt. <u>Click here to send a receipt.</u>	
Muli, Donna, EMNRD		
From:	Phillips, Dorothy, EMNRD	Sent: Thu 4/13/2006 11:45 AM
то:	Mull, Donna, EMNRD	
Cc:		
Subject:	RE: Financial Assurance Requirement	
Attachments:		

All have blanket bonds and none appear on Jane's list.

From: Mull, Donna, EMNRD
Sent: Thursday, April 13, 2006 11:26 AM
To: Phillips, Dorothy, EMNRD
Cc: Macquesten, Gail, EMNRD; Sanchez, Daniel J., EMNRD
Subject: Financial Assurance Requirement

Dorothy,

( m -

Is the Financial Assurance Requirement for these Operators OK?

Pogo Producing Co (17891) Petrohawk Operating Co (194849) Forest Oil Permian Corp (33016)

Please let me know. Thanks Donna

https://webmail.state.nm.us/exchange/dmull/Inbox/RE:%20Financial%20Assurance%20Requirement.EM... 4/13/2006